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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/869,175	TSUDA ET AL.	
	Examiner	Art Unit	
	Dan Washburn	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,5-8,11,13-22,24,25 and 27-48* is/are pending in the application.

4a) Of the above claim(s) *21,22,24,25 and 27-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,5-8,11,13-20 and 34-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of group 1, claims 3, 5-8, 11, 13-22, 24, 25, and 27-48, drawn to displaying program content on respective planes of a rotatable three-dimensional (3D) object, where a user controls the rotation of the 3D object and the system designates the program content of one of the 3D object's planes as executable based on the orientation of the 3D object, in the reply filed on 5/22/06 is acknowledged.

This application contains claims 21, 22, 24, 25, and 27-33, drawn to an invention nonelected without traverse in applicant's response received 5/22/06. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the second correspondence table" in line 24. There is insufficient antecedent basis for this limitation in the claim. Line 21 recites 'a second corresponding table', but the claim never recites 'a second correspondence table'.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 6-8, 35, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Amro et al. (US 5,515,486).

As to claim 3, Amro describes a program selection and execution device comprising: a selecting object displaying means for displaying an image on a display screen, which image comprises a selecting object having mapped textures indicating program contents to respective planes of a three-dimensional rotation body object,

which plural planes being disposed at regular intervals with respect to a center axis, being located in a three-dimensional virtual space (column 2 lines 5-35 describes a polyhedral display container (Figures 3 and 4) and column 3 lines 27-33 describes that each panel contains program icons and workspace switches); a rotation display control means for giving a rotation display control signal to display an image which comprises the selecting object rotating with the center axis as a center of rotation in the three-dimensional virtual space, to the selecting object displaying means (column 3 lines 46-67 and column 4 lines 1-2 describe that the user is able to rotate front panel container 300 by clicking or double-clicking in empty space on any visible front panel except the central front panel. When the user clicks on a desired panel the front panel container 300 rotates along the x-axis and/or along the y-axis as needed to place the desired panel in the central front position. The user clicking on a desired panel and the system adjusting to place that panel in the central front position is considered a rotation display control means); a selection input means for receiving a selection input to select a program (column 3 lines 34-45 describes that front panel 322 contains four engineering drawing tools, where each drawing tool can be opened and operated in separate workspaces. The user may use a pointing device 218 to open and manipulate any of the described tools, as is well-known in the computer art); a selection plane judging means for judging which plane among the plural planes composing the three-dimensional rotation body object faces front on a display screen when the selection input is inputted from the selection input means (column 3 lines 27-45 describes that in a preferred embodiment only the central front panel is active, meaning that only its

objects can be activated (e.g. opened). Alternatively, multiple front panels could be active. If only the central front panel is active then the system would first determine if the program that the user has requested access to exists within the central front panel. If the program is not located within the central front panel then the request is denied and the program doesn't open. The system determining if the request to open a program applies to a program in the central front plane is considered a selection plane judging means); a correspondence table holding means for holding information which indicates a correspondence relationship between the plural planes composing the three-dimensional rotation body object and the programs (column 4 lines 45-58 describes a look-up table that dynamically maintains the screen coordinates of each front panel and object(s) within each front panel); a program deciding means for judging the program which corresponds to the plane judged by the selection plane judging means based on the information held in the correspondence table holding means, so as to decide a program to execute (column 4 lines 45-58 describes that the look-up table dynamically maintains the screen coordinates for object(s) within each front panel and column 3 lines 27-45 describes that these objects may be icons, controls, or workspace switches, which are considered programs. The system determines the programs that are within the active window based on the look-up table and then opens them as requested by a user); a program executing means for executing the program decided by the program deciding means (column 3 lines 34-45 describes a user opening a program in the central front panel by positioning a pointer over the desired icon and clicking with pointing device 218. The system opening the program upon the user's request is

considered a program executing means); and the rotation display control means being provided with a holding means for holding information to rotate the selecting object in a prescribed pattern, and providing the rotation display control signal to the selecting object displaying means on the basis of the information held in the holding means (column 4 lines 45-58 describes a look-up table that holds the screen coordinates of each displayed front panel. Column 3 lines 46-67 and column 4 lines 1-21 describe that the user is able to rotate the front panel container about four axes, namely the X, Y, and left and right diagonal axes. The look-up table in combination with the system's ability to rotate along the X, Y, left diagonal, and right diagonal axes is considered a rotation display control means being provided with a holding means for holding information to rotate the selecting object in a prescribed pattern).

With regard to claim 6, Amro describes a program selection and execution device wherein the selection plane judging means judges the plane which faces front on the basis of the depth information which is obtained when the selecting object displaying means displays the selecting object on a screen (column 4 lines 45-58 describes a look-up table that maintains the screen coordinates of each front panel and the objects within each front panel. Column 3 lines 34-45 describes that only the central front panel is active, meaning that only its objects can be activated (e.g. opened). The system judges which plane faces front (or which panel is the central front panel) on the basis of the coordinate information stored in the look-up table, this is considered judging which plane faces front on the basis of the depth information which is obtained when the

selecting object displaying means displays the selecting object on a screen, as the front panel container 300 is a 3D object).

Concerning claim 7, Amro describes a program selection and execution device wherein the selection plane judging means judges a plane which faces front on the display screen in accordance with the rotation angle information which indicates an angle by which the selecting object has rotated from an initial state (column 3 lines 46-67 and column 4 lines 1-25 describe that the user can click on a front panel, other than the central front panel, in order to rotate the front panel container 300 to place the desired front panel in the central front position. Once the new front panel is finished rotating into the central front position the objects within that panel become active (e.g., the user can now open any programs on the panel). The new front panel rotating into the central front position and then becoming active is considered the system determining which plane faces front on the display screen in accordance with the rotation angle information which indicates an angle by which the selecting object has rotated from an initial state).

Regarding claims 8, 35, and 36, Amro describes a program selection and execution device wherein a screen display switching means is provided, which switches a screen display so that the execution display screen is displayed at the program execution, when a selected program has an execution display screen (column 3 lines 34-45 describes that front panel 322 contains four engineering drawing tools. Each drawing tool can run in a separate workspace, wherein workspace switch 350 allows the

user to switch between these workspaces. Workspace switch 350 is considered a screen display switching means).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Amro et al. (US 5,515,486) in view of Imai et al. (US 5,850,213).

As to claim 5, Amro doesn't describe a program selection and execution device wherein a counter means is provided, which counts the number of times when the plane which faces the front among the plural planes composing the three-dimensional rotation body object is switched while the selecting object is rotated on a display screen, so as to output counting information, and the selection plane judging means judges the plane which faces front on the display screen on the basis of the counting information outputted by the counter means.

However, Imai describes a three-dimensional special effect apparatus wherein the motion of an image across a display screen is controlled by a trackball and a rotary ring. The amount of movement is controlled and scaled according to the theoretical depth of the special image on the screen such that the greater the depth of the special image, the less it is moved by a given rotational amount of the trackball or rotary ring (column 2 lines 39-57). Imai further describes that the amount of movement of the

trackball is detected by an X counter and a Y counter (column 5 lines 14-35). The system then uses the information acquired by the counter to rotate the 3D object accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Amro the 3D special effect apparatus that includes a counter means, which counts the number of times when the plane which faces the front is switched while the selecting object is rotated on a display screen, so as to output counting information, and the selection plane judging means judges the plane which faces front on the display screen on the basis of the counting information outputted by the counter means, as taught by Imai, in order to implement a very simple and proven method of rotating the displayed 3D object by incrementing an X and/or Y counter every time a user inputs a request to rotate the object, and then rotating the object appropriately. The advantage of using a counter is that the system will always be able to accurately rotate the 3D object, even when the user rapidly requests a large number of rotations. The system can simply log the requests using the counter and then carry out the rotations based on the value of the counter. This is much more reliable than requiring the system to dynamically react to each request, as some requests may be accidentally cancelled out by later requests.

Regarding claim 34, Amro describes a program selection and execution device wherein a screen display switching means is provided, which switches a screen display so that the execution display screen is displayed at the program execution, when a selected program has an execution display screen (column 3 lines 34-45 describes that front panel 322 contains four engineering drawing tools. Each drawing tool can run in a

separate workspace, wherein workspace switch 350 allows the user to switch between these workspaces. Workspace switch 350 is considered a screen display switching means).

Claims 11, 14-16, 19, 20, 38, 39, 44, 45, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amro et al. (US 5,515,486) in view of Hoarty (US 5,485,197).

As to claim 11, Amro describes a data selection and execution device comprising: a selecting object displaying means for displaying an image on a display screen, which image comprises a selecting object having mapped textures indicating data contents to respective planes of a three-dimensional rotation body object, which plural planes being disposed at regular intervals with respect to a center axis, being located in a three-dimensional virtual space (column 2 lines 5-35 describes a polyhedral display container (Figures 3 and 4) and column 3 lines 27-33 describes that each panel contains program icons (data icons) and workspace switches); a rotation display control means for giving a rotation display control signal to display an image which comprises the selecting object rotating with the center axis as a center of rotation in the three-dimensional virtual space, to the selecting object displaying means (column 3 lines 46-67 and column 4 lines 1-2 describe that the user is able to rotate front panel container 300 by clicking or double-clicking in empty space on any visible front panel except the central front panel. When the user clicks on a desired panel the front panel container 300 rotates along the x-axis and/or along the y-axis as needed to place the desired panel in the central front position. The user clicking on a desired panel and the system

adjusting to place that panel in the central front position is considered a rotation display control means); a selection input means for receiving a selection input to select a program (column 3 lines 34-45 describes that front panel 322 contains four engineering drawing tools, where each drawing tool can be opened and operated in separate workspaces. The user may use a pointing device 218 to open and manipulate any of the described tools, as is well-known in the computer art); a selection plane judging means for judging which plane among the plural planes composing the three-dimensional rotation body object faces front on a display screen when the selection input is inputted from the selection input means (column 3 lines 27-45 describes that in a preferred embodiment only the central front panel is active, meaning that only its objects can be activated (e.g. opened). Alternatively, multiple front panels could be active. If only the central front panel is active then the system would first determine if the program that the user has requested access to exists within the central front panel. If the program is not located within the central front panel then the request is denied and the program doesn't open. The system determining if the request to open a program applies to a program in the central front plane is considered a selection plane judging means); a first correspondence table holding means for holding information which indicates a correspondence relationship between the plural planes composing the three-dimensional rotation body object and the programs (column 4 lines 45-58 describes a look-up table that dynamically maintains the screen coordinates of each front panel and object(s) within each front panel); a data deciding means for judging the data which corresponds to the plane judged by the selection plane judging means based on the

information held in the first correspondence table holding means, so as to decide data to open (column 4 lines 45-58 describes that the look-up table dynamically maintains the screen coordinates for object(s) within each front panel and column 3 lines 27-45 describes that these objects may be icons, controls, or workspace switches, the icons are considered to potentially represent data. The system determines the data that are within the active window based on the look-up table and then opens them as requested by a user); and the rotation display control means being provided with a holding means for holding information to rotate the selecting object in a prescribed pattern, and providing the rotation display control signal to the selecting object displaying means on the basis of the information held in the holding means (column 4 lines 45-58 describes a look-up table that holds the screen coordinates of each displayed front panel. Column 3 lines 46-67 and column 4 lines 1-21 describe that the user is able to rotate the front panel container about four axes, namely the X, Y, and left and right diagonal axes. The look-up table in combination with the system's ability to rotate along the X, Y, left diagonal, and right diagonal axes is considered a rotation display control means being provided with a holding means for holding information to rotate the selecting object in a prescribed pattern).

Amro doesn't describe a second corresponding table holding means for holding information which indicates a corresponding information between the data and the program to open the data; a program deciding means for judging the program to open the data which is decided by the data holding means based on the information held in the second corresponding table holding means, so as to decide a program to execute;

and a program executing means for executing the program decided by the program deciding means, so as to open the data decided by the data deciding means.

However, Hoarty describes an interactive home information system that provides interactive cable television services to a plurality of subscribers (column 2 lines 19-52). Hoarty further describes a carousel menu system that presents a menu of choices to the user (see Figures 35-41). The user can select a menu item using a remote control and the system will either present a new screen of menu items or switch to presenting the desired television show or movie (column 18 lines 63-67 and column 19 lines 1-45). The grid of menu items illustrated in Figure 35 is considered a second corresponding table holding means for holding information which indicates a corresponding information between the data and the program to open the data. The described remote unit 14 and the menu interface illustrated in Figure 35 are considered the program deciding means for judging the program to open the data which is decided by the data deciding means based on the information held in the second corresponding table holding means, so as to decide a program to execute. The described remote unit 14 and the menu interface illustrated in Figure 35 are also considered a program executing means for executing the program decided by the program deciding means, so as to open the data decided by the data deciding means (column 19 lines 10-18 specifically describes that the user can use the remote unit 14 to overlay a menu choice of interest and then push a button on the remote unit 14 to select the menu choice). It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Amro the system and method of a second corresponding table holding means for holding information which

indicates a corresponding information between the data and the program to open the data; a program deciding means for judging the program to open the data which is decided by the data holding means based on the information held in the second corresponding table holding means, so as to decide a program to execute; and a program executing means for executing the program decided by the program deciding means, so as to open the data decided by the data deciding means, as taught by Hoarty, in order to incorporate cable television viewing into one or more of the panels of the front panel container described in Amro. The advantage of incorporating cable television viewing into the front panel container described in Amro is that it creates a demand for Amro's invention that didn't exist before, namely, the demand for cable television and easily navigating through multiple menus and other information to find a desired show or movie.

With regard to claim 14, Amro describes a data selection and execution device wherein the selection plane judging means judges the plane which faces front on the basis of the depth information which is obtained when the selecting object displaying means displays the selecting object on a screen (column 4 lines 45-58 describes a look-up table that maintains the screen coordinates of each front panel and the objects within each front panel. Column 3 lines 34-45 describes that only the central front panel is active, meaning that only its objects can be activated (e.g. opened). The system judges which plane faces front (or which panel is the central front panel) on the basis of the coordinate information stored in the look-up table, this is considered judging which plane faces front on the basis of the depth information which is obtained when the

selecting object displaying means displays the selecting object on a screen, as the front panel container 300 is a 3D object).

Concerning claim 15, Amro describes a data selection and execution device wherein the selection plane judging means judges a plane which faces front on the display screen in accordance with the rotation angle information which indicates an angle by which the selecting object has rotated from an initial state (column 3 lines 46-67 and column 4 lines 1-25 describe that the user can click on a front panel, other than the central front panel, in order to rotate the front panel container 300 to place the desired front panel in the central front position. Once the new front panel is finished rotating into the central front position the objects within that panel become active (e.g., the user can now open any programs on the panel). The new front panel rotating into the central front position and then becoming active is considered the system determining which plane faces front on the display screen in accordance with the rotation angle information which indicates an angle by which the selecting object has rotated from an initial state).

Regarding claims 16, 38, and 39, Amro describes a data selection and execution device wherein a screen display switching means is provided, which switches a screen display so that the execution display screen is displayed at the program execution, when a selected program has an execution display screen (column 3 lines 34-45 describes that front panel 322 contains four engineering drawing tools. Each drawing tool can run in a separate workspace, wherein workspace switch 350 allows the user to

switch between these workspaces. Workspace switch 350 is considered a screen display switching means).

As to claims 19, 44, and 45, Amro doesn't describe a data selection executing device which further comprises a data reproducing-displaying means, which, when data corresponding to each plane of the three-dimensional rotation body object are sound data, moving image data, or moving image data accompanying sound data, performs reproduction and display of corresponding data in conjunction with a display of the selecting object, and which performs reproduction and display so that, when a plane which faces front the most on the display screen is switched from a first plane to a second plane adjacent thereto by the rotation of the selecting object, reproduction and display of data corresponding to the first plane is faded out, which reproduction and display of data corresponding to the second plane is faded in.

However, Hoarty describes a data selection executing device which further comprises a data reproducing-displaying means, which, when data corresponding to each plane of the three-dimensional rotation body object are sound data, moving image data, or moving image data accompanying sound data, performs reproduction and display of corresponding data in conjunction with a display of the selecting object, and which performs reproduction and display so that, when a plane which faces front the most on the display screen is switched from a first plane to a second plane adjacent thereto by the rotation of the selecting object, reproduction and display of data corresponding to the first plane is faded out, which reproduction and display of data corresponding to the second plane is faded in (column 18 lines 63-67, column 19 lines

1-18, and Figures 35-41 describe a rotational body that acts as an interactive television guide. Column 10 lines 35-65 and Figure 12 describe the video subsystem 121 and audio subsystem 122, which operate under control of CPU 127 and control line 128. The video and audio subsystems determine which video and audio signals to pass from the analog MMC 125 to the scrambler-modulator card 126. Specifically, the mixer 122e of audio subsystem 122 takes in audio data from TV tuner 129, background music source 122b, tactile response source 122c, and digital program source 122d. If a user is watching television (considered to be presented on a first plane of the rotational object) then the mixer 122e sends the audio information from the TV tuner module, when a user transitions from watching TV to viewing an interactive menu (considered to be presented on a second plane of the rotational object) the audio signal from the television program fades out and the audio signal from the interactive menu (e.g., either background music, tactile response audio, or both) fades in). See the rejection of claim 11 given above for motivation to combine Hoarty with Amro.

With regard to claims 20, 47, and 48, Amro doesn't describe a data selection executing device which further comprises a data reproducing-displaying means, which, when data corresponding to each plane of the three-dimensional rotation body object are data including sound data, performs reproduction and display of corresponding data in conjunction with a display of the selecting object and which has a first audio data audio source corresponding to the first plane which faces front the most on the display screen and the second audio data audio source position corresponding to the second plane adjacent to the first plane, according to the rotation of the selection object, and

performs reproduction and display of the first and second audio data in accordance with the movements of the positions of the first and second planes.

However, Hoarty describes a data selection executing device which further comprises a data reproducing-displaying means, which, when data corresponding to each plane of the three-dimensional rotation body object are data including sound data, performs reproduction and display of corresponding data in conjunction with a display of the selecting object and which has a first audio data audio source corresponding to the first plane which faces front the most on the display screen and the second audio data audio source position corresponding to the second plane adjacent to the first plane, according to the rotation of the selection object, and performs reproduction and display of the first and second audio data in accordance with the movements of the positions of the first and second planes (column 18 lines 63-67, column 19 lines 1-18, and Figures 35-41 describe a rotational body that acts as an interactive television guide. Column 10 lines 35-65 and Figure 12 describe the video subsystem 121 and audio subsystem 122, which operate under control of CPU 127 and control line 128. The video and audio subsystems determine which video and audio signals to pass from the analog MMC 125 to the scrambler-modulator card 126. Specifically, the mixer 122e of audio subsystem 122 takes in audio data from TV tuner 129 (considered the first audio data audio source), background music source 122b (considered the second audio data audio source), tactile response source 122c, and digital program source 122d. If a user is watching television (considered to be presented on a first plane of the rotational object) then the mixer 122e sends the audio information from the TV tuner module, when a

user transitions from watching TV to viewing an interactive menu (considered to be presented on a second plane of the rotational object) the audio signal from the television program fades out and the audio signal from the interactive menu (e.g., either background music, tactile response audio, or both) fades in). See the rejection of claim 11 given above for motivation to combine Hoarty with Amro.

Claims 13, 37, 43, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amro (US 5,515,486) in view of Hoarty (US 5,485,197) as applied to claim 11 above, and further in view of Imai et al. (US 5,850,213).

As to claim 13, Amro in view of Hoarty doesn't describe a data selection and execution device wherein a counter means is provided, which counts the number of times when the plane which faces the front among the plural planes composing the three-dimensional rotation body object is switched while the selecting object is rotated on a display screen, so as to output counting information, and the selection plane judging means judges the plane which faces front on the display screen on the basis of the counting information outputted by the counter means.

However, Imai describes a three-dimensional special effect apparatus wherein the motion of an image across a display screen is controlled by a trackball and a rotary ring. The amount of movement is controlled and scaled according to the theoretical depth of the special image on the screen such that the greater the depth of the special image, the less it is moved by a given rotational amount of the trackball or rotary ring (column 2 lines 39-57). Imai further describes that the amount of movement of the trackball is detected by an X counter and a Y counter (column 5 lines 14-35). The

system then uses the information acquired by the counter to rotate the 3D object accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Amro the 3D special effect apparatus that includes a counter means, which counts the number of times when the plane which faces the front is switched while the selecting object is rotated on a display screen, so as to output counting information, and the selection plane judging means judges the plane which faces front on the display screen on the basis of the counting information outputted by the counter means, as taught by Imai, in order to implement a very simple and proven method of rotating the displayed 3D object by incrementing an X and/or Y counter every time a user inputs a request to rotate the object, and then rotating the object appropriately. The advantage of using a counter is that the system will always be able to accurately rotate the 3D object, even when the user rapidly requests a large number of rotations. The system can simply log the requests using the counter and then carry out the rotations based on the value of the counter. This is much more reliable then requiring the system to dynamically react to each request, as some requests may be accidentally cancelled out by later requests.

Regarding claim 37, Amro describes a data selection and execution device wherein a screen display switching means is provided, which switches a screen display so that the execution display screen is displayed at the program execution, when a selected program has an execution display screen (column 3 lines 34-45 describes that front panel 322 contains four engineering drawing tools. Each drawing tool can run in a separate workspace, wherein workspace switch 350 allows the user to switch between

these workspaces. Workspace switch 350 is considered a screen display switching means).

As to claim 43, Hoarty describes a data selection executing device which further comprises a data reproducing-displaying means, which, when data corresponding to each plane of the three-dimensional rotation body object are sound data, moving image data, or moving image data accompanying sound data, performs reproduction and display of corresponding data in conjunction with a display of the selecting object, and which performs reproduction and display so that, when a plane which faces front the most on the display screen is switched from a first plane to a second plane adjacent thereto by the rotation of the selecting object, reproduction and display of data corresponding to the first plane is faded out, which reproduction and display of data corresponding to the second plane is faded in (column 18 lines 63-67, column 19 lines 1-18, and Figures 35-41 describe a rotational body that acts as an interactive television guide. Column 10 lines 35-65 and Figure 12 describe the video subsystem 121 and audio subsystem 122, which operate under control of CPU 127 and control line 128. The video and audio subsystems determine which video and audio signals to pass from the analog MMC 125 to the scrambler-modulator card 126. Specifically, the mixer 122e of audio subsystem 122 takes in audio data from TV tuner 129, background music source 122b, tactile response source 122c, and digital program source 122d. If a user is watching television (considered to be presented on a first plane of the rotational object) then the mixer 122e sends the audio information from the TV tuner module, when a user transitions from watching TV to viewing an interactive menu (considered to

be presented on a second plane of the rotational object) the audio signal from the television program fades out and the audio signal from the interactive menu (e.g., either background music, tactile response audio, or both) fades in).

With regard to claim 46, Hoarty describes a data selection executing device which further comprises a data reproducing-displaying means, which, when data corresponding to each plane of the three-dimensional rotation body object are data including sound data, performs reproduction and display of corresponding data in conjunction with a display of the selecting object and which has a first audio data audio source corresponding to the first plane which faces front the most on the display screen and the second audio data audio source position corresponding to the second plane adjacent to the first plane, according to the rotation of the selection object, and performs reproduction and display of the first and second audio data in accordance with the movements of the positions of the first and second planes (column 18 lines 63-67, column 19 lines 1-18, and Figures 35-41 describe a rotational body that acts as an interactive television guide. Column 10 lines 35-65 and Figure 12 describe the video subsystem 121 and audio subsystem 122, which operate under control of CPU 127 and control line 128. The video and audio subsystems determine which video and audio signals to pass from the analog MMC 125 to the scrambler-modulator card 126. Specifically, the mixer 122e of audio subsystem 122 takes in audio data from TV tuner 129 (considered the first audio data audio source), background music source 122b (considered the second audio data audio source), tactile response source 122c, and digital program source 122d. If a user is watching television (considered to be

presented on a first plane of the rotational object) then the mixer 122e sends the audio information from the TV tuner module, when a user transitions from watching TV to viewing an interactive menu (considered to be presented on a second plane of the rotational object) the audio signal from the television program fades out and the audio signal from the interactive menu (e.g., either background music, tactile response audio, or both) fades in).

Claim 17, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amro et al. (US 5,515,486) in view of Hoarty (US 5,485,197), as applied to claim 11 above, and further in view of Suzuoki et al. (US 5,949,969).

Concerning claims 17, 41, and 42, Amro in view of Hoarty doesn't describe a data selection executing device wherein the selecting object displaying means maps, when data corresponding to each surface of the three-dimensional rotation body object are moving image data, an image obtained by reproducing the moving image data to a corresponding surface as a texture.

However, Suzuoki describes a data selection execution device wherein the selecting object displaying means maps, when data corresponding to each surface of the three-dimensional rotation body object are moving image data, an image obtained by reproducing the moving image data to a corresponding surface as a texture (column 2 lines 16-24, column 4 lines 22-31, and column 4 lines 40-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Amro in view of Hoarty the system and method of including moving image data as a texture on a surface of a three-dimensional object, as taught by Suzuoki, in order to display

animated images, such as streaming video, on each of the planes of the three dimensional objects described in Amro and Hoarty. The advantage of including the capability of displaying animated images on multiple surfaces is that a user will be able to display multiple television shows or movies on the display at one time while simultaneously working with other programs. This added functionality allows the user to accomplish more tasks at the same time, which increases the value in the product and thus increases the demand for the product.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amro et al. (US 5,515,486) in view of Hoarty (US 5,485,197) and further in view of Suzuoki et al. (US 5,949,969), as applied to claim 17 above, and further in view of Visvanathan et al. (US 6,359,643).

As to claim 18, Amro in view of Hoarty and further in view of Suzuoki doesn't describe a data selection and execution device wherein the selecting object displaying means maps a moving image obtained by reproducing moving image data to a corresponding plane which faces front on a display screen among plural planes composing the three-dimensional rotation body as a texture, while maps still pictures extracted from the moving image data obtained by reproducing the moving image data to corresponding planes which are not turned forward on the display screen among plural planes composing the three-dimensional rotation body object as textures. Suzuoki describes mapping still and moving images onto a three-dimensional object as textures (column 4 lines 22-52), but doesn't describe extracting still images from moving

image data and then placing the extracted still images on the three-dimensional object as textures.

However, Visvanathan describes a method and apparatus for extracting still images from a continuous stream of video (column 2 lines 14-33). It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Amro, Hoarty, and Suzuoki the system and method of extracting still images from a continuous stream of video, as taught by Visvanathan, in order to present a complete video sequence on one plane of a three-dimensional object while presenting still frames of the video sequence on the other visible planes of the three-dimensional object. Presenting extracted still frames of a video image on the other planes of the three-dimensional object could prove to make an advertisement more effective, as a user may be interested in the unique presentation of the advertisement, which means the user is more inclined to watch the ad in its entirety and more likely to remember the product being advertised.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amro et al. (US 5,515,486) in view of Hoarty (US 5,485,197) and further in view of Imai et al. (US 5,850,213), as applied to claim 13 above, and further in view of Suzuoki et al. (US 5,949,969).

Concerning claim 40, Amro in view of Hoarty and further in view of Imai doesn't describe a data selection executing device wherein the selecting object displaying means maps, when data corresponding to each surface of the three-dimensional

rotation body object are moving image data, an image obtained by reproducing the moving image data to a corresponding surface as a texture.

However, Suzuoki describes a data selection execution device wherein the selecting object displaying means maps, when data corresponding to each surface of the three-dimensional rotation body object are moving image data, an image obtained by reproducing the moving image data to a corresponding surface as a texture (column 2 lines 16-24, column 4 lines 22-31, and column 4 lines 40-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Amro in view of Hoarty and further in view of Imai the system and method of including moving image data as a texture on a surface of a three-dimensional object, as taught by Suzuoki, in order to display animated images, such as streaming video, on one or more planes of the three dimensional objects described in Amro, Hoarty, and Imai. The advantage of including the capability of displaying animated images is that a user will be able to display multiple television shows or movies on the display at one time while simultaneously working with other programs. This added functionality allows the user to accomplish more tasks at the same time, which increases the value in the product and thus increases the demand for the product.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Goh (US 5,678,015) describes a four-dimensional graphical user interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Washburn whose telephone number is (571) 272-5551. The examiner can normally be reached on Monday through Friday 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571) 272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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